CLAIMS

We claim:

1. A method for exchanging data at irregular intervals between a sender and a receiver, said method comprising:

generating a plurality of interval values;

transmitting data to be exchanged and at least a first of the interval values from the sender to the receiver, wherein the first of the interval values indicates the interval between the transmitting step and a subsequent transmitting step; and

subsequently transmitting data to be exchanged from the sender to the receiver substantially at the interval.

2. The method of claim 1, wherein said generating step includes selecting a seed number representing the average interval for exchanging data.

3. The method of claim 2, wherein a single interval value is generated prior to the sending of each report.

4. The method of claim 2, wherein said subsequently transmitting step includes transmitting at least a second of the interval values from the sender to the receiver.

5. A computer-readable medium having computer-executable instructions for performing the steps recited in claim 1.

6. A computer network comprising:

a receiver node; and

at least one sender node coupled with the receiver node over the network;

the at least one sender node being configured to send reports to the receiver node at irregular intervals, wherein the reports include information regarding the time intervals at which the first sender node will send subsequent reports to the receiver node.

7. The computer network of claim 6, wherein the receiver node is configured to create an expectation window for receiving each report from the at least one sender node.

8. The computer network of claim 7, wherein the expectation window opens at a preset time prior to the corresponding time interval.

9. The network of claim 6, wherein the receiver node is configured to send a query to the at least one sender node if one of the reports is not received while its expectation window remains open.

10. The network of claim 6, further comprising a second sender node configured to send reports to the receiver node at irregular intervals, wherein the reports

include information regarding the time intervals at which the second sender node will send subsequent reports to the receiver node.

11. A method for exchanging data between a sender and a receiver over a communications link, the method comprising:

receiving from the sender data indicative of an interval at which a report will be sent;

creating an expectation window for receiving the report from the sender during a time period which includes the interval; and

opening the expectation window during the time period.

12. The method of claim 11, further comprising receiving the report while the expectation window remains open.

13. The method of claim 12, further comprising closing the expectation window without responding to the sender.

14. The method of claim 11, further comprising creating another expectation window for receiving a subsequent report from the sender during a subsequent time period.

15. The method of claim 14, wherein the report includes data indicative of a subsequent interval at which the subsequent report will be sent, wherein

the report to the subsequent interval is measured from the sending of the report to the sending of the subsequent report.

16. The method of claim 11, further comprising generating a schedule at the receiver for receiving reports from the sender.

17. The method of claim 16, further comprising monitoring the ambient usage of the communications link between the sender and the receiver.

18. The method of claim 17 wherein said generating step includes selecting a seed number representing the average interval for exchanging data between the sender and the receiver as a function of the ambient usage of the communications link.

19. The method of claim 11, further comprising generating an event if the report is not received while the expectation window remains open.

20. The method of claim 19, wherein said generating step includes sending a status inquiry to the sender.

21. A computer-readable medium having computer-executable instructions for performing the steps recited in claim 11.

22. A method for exchanging management data between a sender and a receiver over a communications link, said method comprising:

monitoring the level of non-management traffic over the communications link;

selecting a desired average interval for exchanging management data between the sender and the receiver as a function of the level of non-management traffic over the communications link;

generating a plurality of irregular interval values as a function of the selected average interval value; and

transmitting management data from the sender to the receiver at irregular time intervals corresponding to the generated interval values.

23. The method of claim 22, wherein the communications link is a network.

24. The method of claim 23, wherein said monitoring step includes measuring the network bandwidth.

25. The method of claim 24, wherein said selecting step includes selecting the seed number so that the management traffic is inversely proportional to the non-management traffic.

26. The method of claim 22, wherein the sender is a personal computer and the receiver is a management machine.

27. The method of claim 26, wherein the personal computer includes a central processing unit (CPU) and said monitoring step includes measuring the utilization of the CPU.

28. The method of claim 26, wherein the personal computer includes a memory and said monitoring step including measuring the utilization of the memory.

29. A computer-readable medium having computer-executable instructions for performing the steps recited in claim 22.

30. A method for exchanging data between a sender and a receiver, said method comprising:

generating a first schedule at the sender for sending data to the receiver;

generating a second schedule at the receiver for receiving data from the sender, the second schedule being generated as a function of the first schedule to cause a predetermined probability of failure; and

upon detecting a failure, generating an event at the receiver.

31. The method of claim 30, wherein data from the sender not being received at the receiver a predetermined number of times constitutes a failure.

32. The method of claim 30, wherein said step of generating a second schedule includes establishing at least one expectation window for receiving data from the sender.

33. A computer-readable medium having computer-executable instructions for performing the steps recited in claim 30.

34. A computer-readable medium having stored thereon a data structure comprising:

a first data field containing subject data for transmission from a sender to a receiver; and

a second data field containing interval data representing a time interval for subsequent transmission of subject data from the sender to the receiver.

35. The computer-readable medium of claim 34, wherein the subject data is the current status of the sender.

36. The computer-readable medium of claim 34, wherein the second data field contains interval data representing a plurality of time intervals for subsequent transmissions of subject data from the sender to the receiver.